Town of
Merrimack, New Hampshire

6 Baboosic Lake Rd · Merrimack, NH 03054 · www.merrimacknh.gov

July 7, 2015

REQUEST FOR BID
4 X 4 Utility Work Machine and Trailer

Sealed bids will be received by the Town of Merrimack until 2:00 PM on July 29, 2015 for supplying one 4 X 4 utility work machine and trailer to the Town of Merrimack's Waste Water Treatment Facility in accordance with the enclosed specifications and following conditions.

The work machine and trailer shall be delivered by August 30, 2015. Please indicate on the bid form the date the machine and trailer will be delivered by.

The bid shall be submitted on the Bid Form furnished herewith and shall exclude state and federal taxes not applicable to municipalities. The bid price shall be quoted F.O.B. Town of Merrimack, Waste Water Treatment Facility, 36 Mast Rd, Merrimack, NH.

The Town reserves the right to reject any or all bids, to waive irregularities in the bids, and to accept the bid which best serves the interest of the Town.

Bids must be sealed and marked "Bid on Utility Machine and Trailer" and be delivered to the Town of Merrimack Finance Department, 6 Baboosic Lake Rd, Merrimack, NH 03054, by the time specified above when they will be opened publicly and read aloud.

It is the bidder's responsibility to confirm the bid is received by the Finance Department by the date and time specified.

The Town of Merrimack's Purchasing Policy is available on the Town's website: http://www.merrimacknh.gov/finance-department/pages/bid-opportunities; a copy may be obtained by contacting the Purchasing Agent.

For additional information please contact Xenia Simpson, Purchasing Agent, at xsimpson@merrimacknh.gov or (603) 424-7075.

TOWN OF MERRIMACK, NEW HAMPSHIRE

FINANCE DEPARTMENT
6 Baboosic Lake Road
Merrimack, NH 03054

Tel: 603-424-7075
Fax: 603-424-0516

Bid Specifications

4 x 4 Utility Work Machine
5600-G Turbo Utility Work Machine or Equal
Bobcat Company
And 18' foot trailer

1. GENERAL REQUIREMENTS

a. Machine includes two forward facing seats – operator and passenger
b. Machine to include a front loader (i.e. lift arm with double acting hydraulic cylinders)
c. Front loader is capable of accepting quick-attach attachments
d. Machine is capable of accepting Three-Point Hitch attachments/implements
e. Machine is capable of accepting PTO driven attachments/implements
f. Engine will be a Kubota diesel rated at 59 hp (44 kW) Gross, 56 hp (41,8 kW) Net.
g. Exhaust system will have an approved USDA Forestry Service spark arrester

2. DRIVE SYSTEM REQUIREMENTS

a. Full-time four wheel drive system
b. Limited slip differentials provided in both axles
c. Transmission to be hydrostatic

3. DRIVE CONTROLS

a. Machine equipped with separate controls for engine speed and travel speed
b. Drive speed controlled by a single pedal
c. Engine RPM controlled by a hand lever
d. Travel direction controlled by a shuttle lever which includes positions for Forward, Reverse, and Park
e. Placing the shuttle lever in the "Park" position must engage the parking brake, and disable the drive controls
f. A neutral start feature must be provided which requires machine be in the "Park" position (parking brake applied) before engine can be started

4. TRAVEL SPEEDS

a. Two travel speed ranges required (“Low” and “High”)
b. Must provide the ability to shift between travel speed ranges while moving (on-the-fly) Low range travel speed infinitely variable from 0 to 9 mph (14.5 km/h)
c. High range travel speed infinitely variable from 0 to 18 mph (29 km/h)
d. Reverse travel speed limited to 9 mph (14.5 km/h), regardless of speed range selected
e. Digital speedometer provided to monitor ground speed
f. Cruise control provided to set travel speed and be easily adjusted by acceleration and deceleration buttons on dash

5. STEERING

a. Steering angle to be shared by both axles through an all-wheel steering system
b. The turning diameter will be 17 feet (5.2 m). (The diameter of the circle made by the outside tires in a full turn)
c. Steering to be activated by hydraulic power steering and controlled by a steering wheel with tilt adjustment

6. SUSPENSION

a. A suspension system will be provided between the frame and each axle of the machine
b. Front and rear suspension will consist of coil springs with overload stops and shock absorbers(four-wheel independent suspension)

7. CAB

a. Front and rear cab windows provided, and made from tempered safety glass
b. Dual-arm front windshield wipers provided with a windshield washer system
c. 12 volt power port for accessories provided in the cab
d. Interior dome light provided
e. Two cup / beverage holders provided
f. Factory installed cab enclosure, heating, ventilation, and air conditioning (HVAC) must be available
g. Cab enclosure will consist of two steel frame doors with locking handles and tethers to restrict door open angle
h. Cab floor height is less than 21” above ground level to eliminate intermediate steps for ingress and egress
i. Driver’s seat must be provided with adjustment tracks
j. A seat hip restraint must be provided for the passenger
k. Four halogen work lights provided on the front which can be positioned independently of each other

8. INSTRUMENTATION

a. Gauges provided for engine temperature and fuel level. Gauges are to be back-lit when the front lights are on
b. Digital display provided which can display all of the following: Travel Speed (in both mph and km/h), Engine RPM, Engine Hours, and Job Hours (resettable). Display to be back-lit when front lights are on
c. Warning lights provided to indicate all of the following: Low engine oil pressure, Low fuel level, Low battery voltage, High hydraulic temperature, and High engine temperature.
d. An engine and hydraulic systems monitor will be provided to monitor vital machine conditions. The engine will automatically shut-down in the event vital conditions exceed acceptable limits. The engine needs the ability to restart in 30 second intervals to move the machine after shut-down occurs.
e. Service diagnostic capabilities - the systems monitor will also display a code when warning conditions are encountered, and store these codes for later access.
f. Cold engine starting will be aided by glow plugs. Control of the glow plugs will be automatic based on engine temperature.

9. BRAKES

a. Braking load must be shared by all wheels
b. The machine must automatically bring itself to a stop when the drive pedal is released
c. Parking brakes will be equipped in each axle, engaged by mechanical spring force, and released by hydraulic pressure
d. The drive controls must automatically deactivate when the parking brake is applied
e. The parking brake must engage automatically when the engine is not running

10. THREE-POINT HITCH SYSTEM

a. Three-Point Hitch system must be equipped with telescopic sway bars
b. Three-Point Hitch system must be equipped with turnbuckle style lift rod
c. Three-Point Hitch Lift Capacity = 1775 lbs (805 kg) @ 24 in. (610 mm) behind lift points (with correct machine configuration)
d. Three-Point Hitch height control shall be operated by a dash-mounted lever

11. PTO SYSTEM

a. Machine shall be capable of being equipped with an independent Rear-PTO system
b. Rear-PTO must be 540 RPM
c. Rear-PTO shall be operated by a dash-mounted switch

12. ATTACHMENTS / IMPLEMENTS

a. Attachments must be front mounted
b. Connections for all attachments must be “Bob-Tach” compatible, and meet SAE J2513 for coupling of attachments
c. All attachments must be mounted on a quick-change mechanism. No attachments will be considered unless it can be removed or mounted by an experienced operator in two (2) minutes or less.
d. Activation of quick-hitch provided by two over-center locking levers with wear compensation features
e. Hydraulic connections supplied via hydraulic quick-couplers with a flush-face design
f. Hydraulic supply to attachments must be at least 18 gpm (68 lpm) with an optional hydraulic flow of 26 gpm (98 lpm).
g. Hydraulic pressure release system must be provided to relieve residual pressure trapped in the attachment hydraulics for easier attachment changes
h. Primary attachment hydraulics activated by switches integrated into the loader joystick
i. Primary attachment hydraulics must have the ability to lock into continuous flow (detent) in both forward and reverse directions
j. A supplemental control system must be available to control additional attachment functions from the cab using dash-mounted switches.
k. Machine shall be capable of operating Category I Three-Point Hitch implements
l. Machine shall be capable of operating PTO driven (540 RPM) implements
m. Rear-PTO horsepower must be at least 25 HP (18.6 kW)
n. The quick change mechanism will incorporate two handles that drive spring loaded, wear compensating wedges into the attachment ensuring a tight attachment fit-up.

13. TRAILER CAPACITIES

a. A rear receiver hitch system will be provided which is capable of accepting 2-inch receiver-style hitches, and meets the “Hitch Strength Requirements” identified in section 6.1 of SAE J684
b. The rear receiver hitch must be capable of withstanding 500 lbs. (227 kg) of tongue load
c. The machine must be capable of pulling and stopping tow loads of 4,000 lbs. (1814 kg)

14. LOADER

a. Loader Rated Operating Capacity = 1500 lbs. (680 kg) per SAE J818 and ISO 14397
b. Loader functions controlled by a single pilot-operated hydraulic joystick
c. Lift-arm “float” feature must be provided and activated by the hydraulic joystick
d. An approved lift-arm support device must be provided on the machine to mechanically support the lift arm if raised for service work. The lift-arm support must meet SAE J38 and ISO 10533.

15. STORAGE BIN

a. Storage bin (2) capacity = 50 lbs. (22.7 kg)

16. SAFETY REQUIREMENTS

a. An interlock control system must be provided which automatically disables the loader lift, loader tilt, attachment hydraulics, drive controls, and engages the parking brake when the operator exits the machine.
b. Cab structure must be a 4-post design which is ROPS and FOPS approved per SAE and ISO standards (see Applicable Standards section)
c. Retractable seat belts must be provided for the operator and passenger, and incorporate a 3-point design which includes a shoulder restraint per SAE J2292
d. Locations to tie-down the machine must be provided for transport on a trailer
e. Cab must provide location for storage of the Operation and Maintenance manual

17. APPLICABLE STANDARDS

Machine must comply with the following design and safety standards:

a. SAE J2258 –Light utility vehicle standards
b. ASME / ANSI B56.8 – Safety standard for personnel and burden carriers (Note: Horn required for full compliance)
c. SAE J1040 and ISO 3471 - Roll-Over Protective Structure (ROPS)
d. SAE J1043 and ISO 3449 - Level 1 - Falling Object Protective Structure (FOPS)
e. SAE J732 – Loader specification definitions
f. ISO 14379 – Part 1 – Calculation of loader rated operating capacity and test method for tipping load
g. ISO 2867 – Access systems for earth-moving machinery
h. ISO 3411 – Human physical dimensions and minimum operator space envelope
i. ISO 6682 – Zones of comfort and reach for controls
j. ISO 3450 – Braking systems and performance requirements for rubber-tired machines
k. ISO 5010 – Steering capability for rubber-tired machines
l. SAE J386 – Operator restraint system for off-road work machines
m. ISO 6683 – Seat belts and seat belt anchorages
n. SAE J38 – Lift arm support devices for loaders
o. ISO 10533 – Lift arm support devices
p. SAE J/ISO 13333 – Dumper body support
q. SAE J2513 – Coupling of attachments to loaders
r. SAE J684 – Trailer couplings, hitches, and safety chains – automotive type. Section 6.1 “Hitch Strength Requirements”
s. ASABE S318 – Safety for Agricultural Field Equipment
t. ASABE S217 – Three-Point Free-Link Attachment for Hitching Implements to Agricultural Wheel Tractors
u. ASABE S203 – Front and Rear Power Take-Off for Agricultural Tractors
v. SAE J283 – Test Procedure for Measuring Hydraulic Lift Capacity on Agricultural Tractors Equipped with Three-Point Hitch

MINIMUM SPECIFICATIONS-SUMMARY SHEET
BOBCAT TOOLCAT 5600 G-SERIES OR EQUAL
MANUFACUTURES STANDARD FEATURES TO INCLUDE:

- ADJUSTABLE VINLY SEATS
- ALL WHEEL STEERING
- AUTOMATICALLY ACTIVATED GLOW PLUGS
- AUXILLIARY HYDRAULICS
- VARIABLE FLOW WITH DUAL DIRECTION DETENT
- CUP HOLDERS
- TACHOMETER
- BOOM FLOAT
- CARGO BOX SUPPORT
- CRUISE CONTROL
- CAB ENCLOSURE TO INCLUDE HEATER AND A/C, WIPERS, AND ELECTRIC POWER PORT
- LOWER ENGINE GUARD
- LIMITED SLIP TRANSAXLE
- ENGINE AND HYDRAULIC MONITOR WITH SHUTDOWN
- FRONT WORK LIGHTS
- FULL TIME FOUR WHEEL DRIVE
- ROLL OVER PROTECTION
- DOME LIGHT
- HYDRUALIC DUMP BODY
- INSTRUMENTATION: HOURMETER, JOB HOURS, SPEEDOMETER, TACHOMETER, FUEL GUAGE, AND WARNING LIGHTS
- JOYSTICK, MANUALLY CONTROLLED WITH LIFT ARM FLOAT LIFT ARM SUPPORT
- PARKING BRAKE, AUTOMATIC
- POWER STEERING WITH TILT WHEEL
- RADIATOR SCREEN

- REAR RECEIVER HITCH
- SEAT BELTS, SHOULDER HARNESS
- SPARK ARRESTOR MUFFLER
- 4 WHEEL INDEPENDENT SUSPENSION
- TIRES: FOAM FILLED, 27x10.5-15 (8 PLY) LUG TREAD
- TOOLCAT INTERLOCK TRANSMISSION OR EQUAL
- TWO SPEED TRANSMISSION
- HIGH FLOW PACKAGE
- KEYLESS IGNITION
- HEAVY DUTY BATTERY
- ATTACHEMENT CONTROL
- RADIO
- DOME LIGHT
- TRACTIION CONTROL
- ENGINE BLOCK HEATER
- INTERIOR TRIM
- 68” GENERAL PURPOSE BUCKET
- 72” BRUSHCAT OR EQUAL
- LINEX BEDLINER AND INSIDE FLOOR PAN
- PALLET FORK FRAME W/ 36” PALLET FORK TEETH
- TOWMASTER TC12D TRAILER 18’

ADD ALTERNATE:

- 72” SNOWBLOWER WITH 9.6 HYD MOTOR PACKAGE

TOWN OF MERRIMACK, NEW HAMPSHIRE

FINANCE DEPARTMENT
6 Baboosic Lake Road **Tel: 603-424-7075**
Merrimack, NH 03054 **Fax: 603-424-0516**

BID FORM
4 X 4 Utility Machine and Trailer
Due by
2:00PM on Wednesday, July 29, 2015

One (1) 4 X 4 Utility Work Machine according to the Town's bid specifications **$_____**

Mfg & Model #_____

One (1) Trailer according to the Town's bid specifications **$_____**

Mfg & Model #_____

Total cost: $_____

Optional item: 72" snowblower according to the Town's bid Specifications $_____

Mfg & Model #_____

Delivery will be made within ____ calendar days after receipt of the Town's related purchase order.

The above bid is provided in accordance with the Town's bid invitation dated July 7, 2015, except as indicated below.

_____
_____
_____

Bidder:_____

Bidder:_____
Street Address:_____
City, State, Zip Code: _____
Phone No:_____ Fax No: _____
Authorized Signature:_____
Printed Name: _____
Date:_____
E-Mail: _____